

REMARKS

Claims 1, 8 and 9 are amended and claims 10-11 are canceled herein. Support is found, for example, at page 13, lines 9-20 and Examples 1 and 2 of the specification as filed. No new matter is presented.

I. Response to Claim Rejections under 35 U.S.C. § 102(b)

Claim 10 is rejected under 35 U.S.C. § 102(b) as being anticipated by Kamiya et al (EP 1082907).

Claim 10 is canceled, thereby rendering the rejection moot.

Accordingly, Applicants respectfully request withdrawal of the rejection.

II. Response to Claim Rejections under 35 U.S.C. § 103(a)

Claims 1-5, 7-9 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kamiya et al (EP 1082907).

The Examiner states that the present claims differ from the disclosure of Kamiya et al in that the claims recite a heat treatment prior to decreasing the oxygen content. The Examiner also states that Applicants attach no criticality to the heat step and it appears at most to be conventional. The Examiner further states that in the absence of a showing to the contrary the time in which the product is heat treated is merely a matter of choice and well within the skill of the art. The Examiner also asserts that it would have been obvious for one of ordinary skill in the art to heat treat prior to nitrogen treatment because such is conventional and Applicants are using known components and process steps for their art-recognized function to obtain no more than expected results.

In response to the arguments presented in the Amendment filed March 9, 2009, that Kamiya et al does not teach two heat treatments or improved storage, the Examiner states that Kamiya et al teaches a first heat treatment at 80-90°C and a second heat treatment at 130°C in Example 1. The Examiner further states that the claims do not recite improved storage.

Applicants traverse the rejection for the reasons of record and additionally in view of the following.

Although the Examiner asserts that Kamiya also discloses two heating steps (Example 1 of Kamiya), the object of these heating steps is milk. Kamiya also teaches application to fermented milk and raw cream in addition to milk, but it does not at all teach or suggest application to butter milk and butter serum.

On the other hand, the present invention relates to a process for producing butter milk and/or butter serum, and when butter milk and/or butter serum is/are produced, at least two heating treatments are conducted before and after the separation of raw cream (churning step). Namely in the present invention the first heat treatment is conducted on the raw cream and the second heat treatment is conducted on butter milk and/or butter serum obtained by separating the raw cream and the object of the first heat treatment is thus different from that of the second heat treatment. To clarify these features of the invention, claim 1 is amended as mentioned above.

According to the present invention, by decreasing the dissolved oxygen concentration of the raw cream to 8 ppm or less by addition of an inactive gas before the first heat treatment to the raw cream, and/or by decreasing a dissolved oxygen concentration of the butter milk and/or butter serum to 8 ppm or less by addition of an inactive gas before the second heat treatment to the butter milk and/or butter serum (namely, by decreasing the dissolved oxygen concentration

before at least one of the first and second heat treatments), generation of oxidized smell can be prevented, so that the milky flavor inherent to the butter milk is kept or improved and thereby the storage stability is also improved.

On the contrary, since Kamiya does not at all teach or suggest producing butter milk and/or butter serum, Kamiya does not at all teach or suggest the above-mentioned constitution of the present invention. In addition, Kamiya does not teach or suggest the advantageous effects of the present invention.

The Examiner also states that Applicants have not attached any criticality to the heat step prior to decreasing the oxygen content. This does not correct in view of the arguments presented in the Amendment filed March 9, 2009 in the paragraph bridging pages 7-8. The arguments are also supported by the disclosure in the specification at pages 16-17 and Examples 1 and 2 referred to in the Amendment filed March 9, 2009. Since Example 1 of Kamiya relates to milk, the Applicants consider that the control samples in Examples 1 and 2 in the present specification are more appropriate as objects for comparison to demonstrate the unexpectedly superior effects of the present invention.

As explained in the Amendment filed March 9, 2009, the effect of maintaining or improving the milky flavor originally possessed by butter milk and butter serum are shown by the Examples 1 and 2 in the present specification. In Examples 1 and 2, a heat oxidized smell is evaluated in the case where the dissolved oxygen concentration is decreased before the first heat treatment of two heat treatments necessary for producing butter milk (Example 1), and in the case of where the dissolved oxygen concentration is decreased before the second heat treatment of two heat treatments (Example 2). In each case, the evaluation result in the case of decreasing the dissolved oxygen concentration is excellent in comparison with the control (see Tables 1 and

2), and it is clearly shown that when the dissolved oxygen concentration is decreased at least either before the first heat treatment or the second heat treatment, the milky flavor originally possessed by butter milk and butter serum can be maintained or improved. Thus, the present invention provides unexpectedly superior results and for this additional reason, the present invention is patentable over the cited art.

With respect to the Examiner's assertion that the claims do not recite "improved storage", Applicants submit that there is no requirement that these properties have to be recited in the claims. Properties/effects of an invention that are a result of the claimed features need not be recited. See MPEP § 716.02(f).

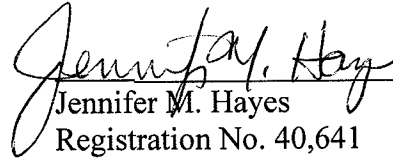
In view of the above, the present invention is not rendered obvious by Kamiya. Accordingly, Applicants respectfully request withdrawal of the §103 obviousness rejection.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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